

**THE CONTENTS OF THIS DOCUMENT
ARE THE HIGHEST QUALITY AVAILABLE**

INITIAL RP DATE 1/26/00

Test Area North, Waste Area Group 1
Public Comment Document F7

Comment(s)

Response

F7-6/21, 22 (continued)

Threats to ecological receptors from site-wide comprehensive RI/FS. M Administrative Record for WAG 1.

The RPSSA Buildings TAN-647 and TAN-648 are active storage and contamination area were designated Si 647 and TAN-648 are active storage Emergency Plan/RCRA Contingency they are dismantled. The soil beneath them is contaminated. The contamination will be evaluated during D&D beyond the asphalt pads was evaluated TSF-06, Area B (the Soil Contamination portion of TSF-06 that was determined to be cleaned up in accordance with

F7-7/21

See response to Comment F7-6, above

F7-8/63, 64

The Agencies are not aware of any (TSF-07). Surface water, sediment with the pond were sampled from the process knowledge regarding the waste were adequate to characterize contaminants, metals, and organic material pond were assessed; cesium-137 was found to be a risk to human health and the discharges into a separate 2.5-acre pond (the pond) consist only of surface water. A State of Idaho permit for Land Application of Wastewater. A 5-acre pond received waste listed under RCRA as part of implementation of this ROD. The retained-in determination for this site metals, organic materials, and radionuclides levels sufficient to pose risks to human health.

The pond is considered a co-located blowdown, and process wastewater Application of Wastewater. A 5-acre pond is contaminated by cesium-137 at levels that require remediation. With 2.5 acres are still active, receiving surface water of Idaho permit for Land Application of Wastewater located facility and will be evaluated. The active area is being addressed as a CIL same site number for both the inactive and active of the TSF-07 Disposal Pond is addressed.

Test Area North, Waste Area Group 1
Public Comment Document F7

Comment(s)

Response

7. Pages 7 and 8 - WRRTF-01 - This site contains lead at depths within the "future residential, with intrusion" zone of 0-3 m below ground surface (bgs). The lead will not decay in the next 100 years. It will still be available through various exposure pathways, yet the proposed action is to leave it in place. 40 CFR 300.430 is very clear about allowable risk and the NCP is clear that contaminants should be treated or removed rather than left in place. Why will lead be left in place at this site? It seems ludicrous that a small site will be fenced forever in an area that has a real potential for future use by the public. Lead contamination at this site should be removed or treated to reduce future risk.
8. Pages 7 and 8 - WRRTF-01 - The RI/FS for this site indicates that the possible presence of PCBs, dioxins, and furans was not investigated. This seems a gross oversight since it is known that waste oils were burned during a time when PCBs were found in many oil products. Since there is no knowledge of the concentrations of those contaminants, the real risk at the site may be much higher than estimated. Thus the RI/FS is inadequate and incomplete. An action determination at this site can not be made until a complete risk profile is obtained through sampling. This Proposed Plan should be withdrawn and resubmitted to public comment when characterization is complete; the potential risk is fully known; and realistic, compliant alternatives identified and evaluated.
9. Page 8 - TSF-03 - This site contains lead at depths within the "future residential, with intrusion" zone of 0-3 m bgs. The lead will not decay in the next 100 years. It will still be available through various exposure pathways, yet the proposed action is to leave it in place. 40 CFR 300.430 is very clear about allowable risk and the NCP is clear that contaminants should be treated or removed rather than left in place. Why will lead be left in place at this site? It seems ludicrous that a small site will be fenced forever in an area that has a real potential for future use by the public. Lead contamination at this site should be removed or treated to reduce future risk.
10. Page 8 - TSF-03 - The RI/FS for this site indicates that the possible presence of PCBs, dioxins, and furans was not investigated. This seems a gross oversight since it is known that waste oils were burned during a time when PCBs were found in many oil products. Since there is no knowledge of the concentrations of those contaminants, the real risk at the site may be much higher than estimated. The RI/FS is inadequate and incomplete. An action determination at this site can not be made until a complete risk profile is obtained through sampling. This Proposed Plan should be withdrawn and resubmitted to public comment when characterization is complete; the potential risk is fully known; and realistic, compliant alternatives identified and evaluated.
11. Page 8 - WRRTF-13 - The site description fails to indicate this release resulted in free product on the aquifer which indicates gross contamination is present in the fractured basalt beneath the soil. The RI/FS fails to consider this additional contaminant pathway and is thus incomplete. Risk at this site seems based on TPH when this method has been superseded within the state of Idaho by the RBCA standards. The RBCA standards are published and implemented throughout the state (and is thus a recognized and

F7-10/70

F7-11/69

F7-12/70

F7-13/69

F7-14/
79, 82

F7-15/25

F7-9/75

All railroad tracks areas were evaluated in the comprehensive RI/FS, the Merced homegrown produce ingestion risk is lower than those for soil ingestion, but not the plants. The remaining contaminant

F7-10/70

The reevaluation of the alternatives presented led to development of a new preferred alternative.

F7-11/69

Activities at the Burn Pits sites very often involve the use of petroleum products and solvents. Therefore, a complete RI/FS should include the production of dioxins/furans records also indicates that other toxic solvents, and used oils were disposed of. Possible contaminants include pesticides and additional metals.

Pursuant to 40 CFR 300.430(a)(2), the RI/FS should evaluate alternatives to the extent necessary. Data collection, risk assessment, and monitoring, among other activities, should be taken to address problems. Sampling and analysis should be done as necessary to achieve adequate

F7-12/70

See response to Comment F7-10, at

F7-13/69

See response to Comment F7-11, at

F7-14/79, 82

Data analysis and modeling, based on the RI/FS, concluded that the spill at the Fuel I site had definite evidence of these petroleum products. Section 6.3.3.4 and Appendix B RI/FS provide details of the data analysis for groundwater contamination from

Test Area North, Waste Area Group 1
Public Comment Document F7

Comment(s)

Response

implemented state standard) and provides chemical-specific cleanup standards for diesel fuel spills which replace generalized TPH standards. The Idaho RBCA standards should be used in the RI/FS rather than TPH standards. If chemical analysis to show compliance with RBCA standards is not available (as I suspect from the lack of data in the RI/FS) then an action determination at this site can not be made until a complete risk profile is obtained through sampling. This Proposed Plan should be withdrawn and resubmitted to public comment when characterization is complete; the potential risk is fully known; and realistic, compliant alternatives identified and evaluated.

12. Pages 8 and 9 - V-tanks - The description of tank contents ("radionuclides, metals, and organics") does not inform the public of the actual contents (listed waste, high mercury, PCBs, alpha contamination) and thus the public cannot evaluate whether the proposed actions are realistic and protective of human health and the environment. Please provide complete and honest description of tank contents.

13. Pages 8 and 9 - V-tanks - "Further evaluation of the uranium-235 will be performed prior to any remediation." Why was U-235 not evaluated during the RI/FS, as required by the NCP? This is another example of how the agencies have proceeded to make cleanup decisions based on inadequate data. This Proposed Plan should be withdrawn and resubmitted to public comment when characterization is complete; the potential risk is fully known; and realistic, compliant alternatives identified and evaluated.

14. Page 9 - TSF-26 - The site description fails to mention extensive soil removal from the PM-2A tank area in the mid-80s. It also fails to mention the significant lack of analytical data on the contents of both tanks. How can remediation decisions be made without adequate data? This Proposed Plan should be withdrawn and resubmitted to public comment when characterization is complete; the potential risk is fully known; and realistic, compliant alternatives identified and evaluated.

15. Page 9 - IDW - "Investigation derived waste...that will be generated during future remedial actions...". Remedial action will not produce IDW (except at INEEL where significant levels of investigation routinely takes place post-ROD). This is another example of how the agencies seem to be playing fast and loose with the CERCLA process and how basic requirements do not seem to be understood. Please correct both oversights.

16. Page 9 - Co-Located Facilities - "The RPSSA is currently operating under an interim status...permit." Only TAN 647 and the pad north of TAN 647 are covered by interim status. TAN 648 and the area of radiologically contaminated soil are not.

17. Page 10 - Co-Located Facilities - "The LOFT-02...pond is currently inactive." This statement is at variance with page 6 which implies the pond is still active. The LOFT-02 pond should be included in this Plan. It is inactive and presents unreasonable risk to the environment (though the source of this risk is not specified in the Plan - and it should be). 40 CFR 300.430 is clear that CERCLA remediation should be considered when

F7-15/25
(continued)

F7-16/79

F7-17/47

F7-18/47

F7-19/55

F7-20/5

F7-21/
21, 22

F7-15/25

The remedial action objective for the revised (November 1998) proposed petroleum hydrocarbon constituents dance with the State of Idaho Risk-based ROD was changed in this ROD to: "Prevent constituents in accordance with the State of Idaho Risk-based ROD." The 1,000 mg/kg reference level conform to the State of Idaho Risk-based ROD January 1, 1997. This change is described

F7-16/79

Because diesel and petroleum production typical risk assessment cannot be performed during the period when the RI/FS is completed, Risk Based Corrective Action (RBCA) agreed to utilize these standards as interim measures during the sampling events and the associated analytical comprehensive RI/FS documents.

F7-17/47

The V-Tank sites require remedial action including the tanks. The tanks themselves contaminated with metals, radionuclides in the surrounding soils original tanks. The contamination in the tanks plating to include metals (barium, cadmium, volatile organic compounds (trichloroethylene, and acetone), semi-volatile organic compounds (cesium-137, plutonium and uranium).

F7-18/47

The uranium-235 in the tank contents after the publication of the February 1998 ROD the quantities of uranium-235 that are criticality and do not require specific action have been described in the revised proposed Administrative Record in OPE-ER-5. Dean Nygard, IDHW. Further evaluation design phase to verify that the selected

F7-19/55

The PM-2A Tank system was shut down due to operational difficulties and spillage.

Test Area North, Waste Area Group 1
Public Comment Document F7

Comment(s)

Response

F7-19/55 (continued)

marized in the 1995 OU 10-06 Rer which removal action the comment removal of most of the liquids in th tion of the aboveground and under (3) removal of remaining liquids fr ceous earth to dry the sludges in 15 by 150-foot area northeast of the ta non-time critical removal action in

The PM-2A Tanks sites require ren rounding the tanks. The contaminat transfer of wastes to and from the t tions ended. The tanks themselves sludge. When the tanks were empt tom of each, to which diatomaceou ination in the sludge is known from metals (barium, cadmium, chromiu (including PCBs), and radionuclide various isotopes of plutonium and

Since the tanks have not leaked, the eligible for calculation of risk in the contents were included in the feasit Sufficient information on the tank c risk and to evaluate remedial action the site would be much more diffic occurred. It is more cost-effective i leaked and at the same time as the i this time. Timeliness and greater el contents now, rather than deferring

F7-20/5

Legacy waste is the formal term us Program for the backlog of stored v duction of U.S. nuclear weapons, a remains to be made. No legacy wa CLA process at TAN, nor does the their disposal.

Investigation-derived waste is cont ment, and personal protective equi and removal activities. It includes Actions taken prior to or during cle WAG 1 investigation-derived wast tions and the CERCLA process.

F7-21/21, 22

See response to Comment F7-6, al

Test Area North, Waste Area Group 1 Public Comment Document F7	Comment(s)	Response to Comments
there is unreasonable risk to human health OR the environment. The statement "Closure of this site will be evaluated to ensure adequacy under CERCLA." does not inform the public what alternatives might be considered and does not provide assurance that public participation will be invited or considered.	F7-21/ 21, 22 (continued)	F7-22/22 The comprehensive R/FS documented that discharges to the WRRTF-03 Evaporation Pond are below levels that pose risk to human health. Threats to ecological receptors from this site will be addressed under the WAG 10 site-wide comprehensive R/FS. More information on this site is available in the Administrative Record for WAG 1.
18. Page 10 - Co-Located Facilities - WRRTF-03 - The statement "Closure of this site will be evaluated to ensure adequacy under CERCLA." does not inform me what alternatives might be considered and does not provide assurance that public participation will be invited or considered.	F7-22/22	F7-23/62
19. Page 10 - RAOs - "Reduce risk from external radiation from radium-226..." There is incomplete data on Ra-226 presented in the R/FS. At what sites does Ra-226 present a risk? It again appears that cleanup decisions are being made without adequate data. The agencies must require the data, evaluate it, and then recommend decisions to the public in that order. This Proposed Plan should be withdrawn until the correct CERCLA process can be followed.	F7-23/62	The February 1998 proposed plan listed radium-226 as one of the COCs at the Disposal Pond (TSF-07). Following the release of the first proposed plan in February 1998, further investigation of the radium-226 concentrations at the Disposal Pond determined that it is present at levels that are below naturally occurring background levels established for the INEEL. The CERCLA process does not require cleanup to below naturally occurring levels. The revised proposed plan issued in November 1999 reflected this expanded knowledge. Detailed information can be found in the Administrative Record in the <i>TAN TSF-07 Pond Radium-226 Concentrations and Corrections</i> report (LMITCO Engineering Design File ER-WAG 1-08, INEEL/EXT-98-00505, June 1998).
20. Page 10 - RAOs - The RAOs for the V-tanks mentions nothing about destruction of PCBs or meeting LDRs. Waste was added to these tanks after 1980 making them a RCRA unit where waste was actively managed and subject to LDRs. If ARARs cannot be met (such as the growing option) then make that plain and state that ARAR waivers will be required in the ROD.	F7-24/ 32, 54	F7-24/32, 54
21. Page 10 - RAOs - The RAOs do not address protection of the Snake River Plain Aquifer from past releases such as the diesel spill at WRRTF. A significant source term of diesel was laid in the soil and fractured basalt; diesel has migrated through fracture basalt of the vadose zone to the aquifer. Remaining diesel contamination could continue to leach to the aquifer.	F7-25/ 31, 82	The remedial action objective (RAO) specified is consistent with the RAO used for tank sites throughout all WAGs at the INEEL. All applicable ARARs, as identified in Part II of this ROD, will be enforced by the Agencies. Destruction of PCBs will be met through specified ARARs, as listed in Part II of this ROD. Verification techniques will be described in the remedial design. Satisfaction of LDRs, as required, will be enforced by the Agencies.
22. Page 14 - Note a at the bottom of the table - 40 CFR 761.60(e) requires a demonstration of treatment equivalent to incineration. This equivalency, through chemical destruction of PCBs, has not been demonstrated. Please explain how, and when, it will take place.	F7-26/54	F7-25/31, 82
23. Page 15 - Preferred Alternative for TSF-07 - The preferred alternative is either #1 or #3a, dependent on levels of radium-226 in the sediments. This information should be known as part of the R/FS. Site characterization is not usually part of the ROD, yet INEEL seems quite good at identifying data gaps at a stage in the process when these simple questions should already have been answered. This Proposed Plan should be withdrawn and resubmitted to public comment when sampling and analysis for radium-226 are complete, the potential risk is fully known, and realistic, compliant alternatives identified and evaluated.	F7-27/62	The comprehensive R/FS determined that contamination at the Fuel Leak site does not threaten the aquifer. See also response to Comment F7-14, above. F7-26/54
24. Page 20 - Preferred Alternative for WRRTF-01 and TSF-03 - The preferred alternative of Limited Action is unacceptable for two reasons. 1) The risk from the lead will be the same 100 years from now as it is now. Lead will not decay like radionuclides. Fencing	F7-28/70	The Agencies would enforce all applicable ARARs, including LDRs, as identified in Part II of this ROD. Verification techniques would be described in the remedial design. The selected remedy for the V-Tanks was changed to Alternative 2 - Soil and Tank Removal, Ex Situ Treatment of Tank Contents, and Disposal during a reevaluation of alternatives for this site, triggered by an increase in the estimated cost for the ISV alternative, and the new availability of off-site commercial treatment facilities permitted to handle mixed wastes similar to those in the V-Tanks. F7-27/62 See response to Comment F7-23, above. F7-28/70
The reevaluation of the alternatives for the Burn Pits in response to public comment led to development of a new alternative and rejection of the previously pre-		

Test Area North, Waste Area Group 1
Public Comment Document F7

Comment(s)

Response

this small portion of land in an area which may actually be used by future residents is an attempt to cheaply abrogate your responsibilities, and legal requirements, under CERCLA; 2) This preferred alternative does not address the unknown risk from PCBs, dioxins, and furans.

F7-28/70
(continued)

F7-29/77

Based on low community support for February proposed plan, Alternative cury spill area was removed from it will be conducted at the site. Baseability study, a determination will be

25. Page 21 - Preferred Alternative for TSF-08 - This alternative is acceptable IF the entire soil column contaminated with mercury is addressed. There is no indication that it will be. Please state the agencies' full plan for this site.

F7-29/77

F7-30/79

It was previously a common practice tamination as possible when fixing. During one tank removal at the Fuel to the location of a nearby tank. The analytical results can be found in the Data analysis and modeling, based concluded that the spill would not these petroleum products reaching 1 6.3.3.4 and Appendixes B and C of the data analysis and modeling use; tamination from WAG 1 surface and

26. Page 21 - Preferred Alternative for WRTF-13 - The agencies are dissembling. "The...site was cleaned up previously, and the site is covered with clean soil." This is not entirely true. Some contamination was removed, but a large amount was left. Limited action is unacceptable due to the large amount of source term left in place and the known contamination extending completely through the vadose zone to the aquifer. This existing source term and pathway to the aquifer is not adequately addressed by the preferred alternative. In addition, the Idaho RBCA cleanup standards should be used rather than the less specific, less restrictive, and general TPH standards.

F7-30/79

F7-31/
80, 82

F7-32/30

See also response to Comment F7-

27. Page 24 - Table 5 - This table is incorrect. Alternatives 3 and 4 (the possible alternatives selected) do not meet, or have not been proven to meet, several ARARs for the waste present in the tanks and soils. Land Disposal Restrictions on RCRA hazardous waste, such as incineration, are not met. These standards are applicable to the waste for several reasons. The ARARs for PCB destruction have not been demonstrated. PCBs left in place will create a PCB chemical waste landfill. The site does not, and will not, meet these ARARs. The agencies are again prevaricating and misleading the public.

F7-33/54

F7-31/80, 82

Limited Action is no longer the pre on comments received from the public the Fuel Leak alternatives were re: Supplement, an additional alternative was developed based on new information petroleum-contaminated sites in the The result was the selection of Alternative which would have high long-term cost and has the lowest cost of the four alternatives require long-term monitoring.

28. Page 26 - Preferred Alternative for TSF-09/18 - The referenced treatability studies should be completed prior to publication of the Proposed Plan so that the agencies and public understand the limitations inherent in the selected alternative. "As the tank contents are contaminated with uranium-235...further evaluation will be performed prior to any remediation." Why has this evaluation not taken place for inclusion in the RI/FS and this Plan? What type of evaluation? How will this evaluation affect the proposed alternatives? This Proposed Plan should be withdrawn and resubmitted to public comment when treatability studies and other evaluations are complete; the potential risk is fully known; and realistic, compliant alternatives identified and evaluated.

F7-34/51

The comprehensive RI/FS determination not threaten the aquifer. See also re:

29. Page 26 - Preferred Alternative for TSF-09/18 - In-situ vitrification has not been demonstrated as an equivalent technology for treatment of high mercury (>260 ppm) waste. The RCRA Land Disposal Restriction for this waste is incineration or retorting. If incinerated, the residues must then be checked for total mercury content. If ISV cannot be demonstrated as an equivalent treatment, then an LDR waiver will be required. Why are these issues not discussed in this Plan. The Proposed Plan should be withdrawn and resubmitted to public comment when the ISV treatability study is complete and the option can be fully evaluated.

F7-35/54

F7-32/30

See response to F7-15, above.

F7-33/54

The Agencies would enforce all applicable in Part II of this ROD. Verification design. The selected remedy for the and Tank Removal, Ex Situ Treatment reevaluation of alternatives for this cost for the ISV alternative, and the ment facilities permitted to handle n

Test Area North, Waste Area Group 1
Public Comment Document F7

	Comment(s)	Response
30	Page 26 - Preferred Alternative for TSF-09-18 - In situ grouting of tank contents and on-site soil disposal is not an acceptable alternative for several reasons. 1) In situ grouting of waste with >500 ppm PCBs does not meet the ARAR which requires incineration of this waste. An equivalent level of destruction through chemical oxidation has not been demonstrated. 2) Grouting of waste between 50 and 500 ppm PCBs will create a PCB landfill at the site. The site does not, and cannot, meet the ARARs for PCB chemical landfills. In addition, it would be imprudent to create a PCB landfill over the Snake River Plain Aquifer. 3) Grouting does not meet the RCRA LDR standards for the organic and mercury components of the waste. If this alternative is chosen, then an ARAR waiver will be required and this Plan does not mention this important fact. 4) RCRA listed hazardous waste will be left in place after grouting. This site does not meet the ARARs for hazardous waste landfills. It would be imprudent to construct a hazardous waste landfill over the Snake River Plain Aquifer. 5) Soil surrounding the tanks is contaminated with both PCBs and RCRA listed waste. This Plan proposes to bury this PCB and RCRA listed waste in an on-site landfill. The proposed INEEL soil repository was not expected, or designed, to receive PCB and RCRA hazardous waste. Have plans for the on-site soil repository changed to include this type of waste? It would be imprudent to construct and operate a PCB and RCRA hazardous waste landfill over the Snake River Plain Aquifer. 6) The treatability study for this alternative has not been completed. There is no data to support the claim that in situ grouting can meet the stated remedial action objectives. The Proposed Plan should be withdrawn and resubmitted to public comment when the ISV and in situ grouting treatability studies are complete and the options can be fully evaluated. (Option 2a3 also does not meet ARARs, but was not selected. In any case Table 3 is still incorrect on ARAR compliance since RCRA listed waste cannot be disposed at the RWM/C.)	F7-34/51 See response to Comment F7-18, a F7-35/54 See response to Comment F7-33, a F7-36/33 It has been determined that grouting, and TSF-18) or the PM-2A Tanks (identified in Part II of this ROD. A these sites that involve grouting to eliminated from consideration for s
31.	Page 30 - Table 6 - These ARARs cannot be demonstrated to be compliant since only minimal analytical data is available for both tanks. It cannot be determined if RCRA listed waste meets, or can meet, LDRs through grouting. Soil surrounding these tanks is contaminated with RCRA listed waste. Again, the onsite soil repository was not intended to receive RCRA listed waste, thus the ARARs for RCRA landfills at the soil repository will not be met.	F7-37/37, 83 The proposed ICDF would be a lan soil and debris. The development c Group 3 at the Idaho Nuclear Techn merly the Idaho Chemical Processin including its siting, design, capacity presented in October 1998, in the <i>P Idaho Chemical Processing Plant</i> . 3 is expected to be finalized in Sept
32.	Page 32 - Preferred Alternative for TSF-26 - Without detailed analytical data on hazardous constituents, it is difficult to evaluate possible remedial alternatives. It is known that these tanks contain RCRA listed waste. In situ grouting may, or may not, meet LDR standards. (LDR standards are relevant because what is now tank storage will become land disposal after grouting occurs.) Even if LDRs are met, there is no discussion in the Alternative of meeting RCRA requirements for hazardous waste landfills for the waste left in place. The agencies are again proposing a hazardous waste landfill over the Snake River Plain Aquifer. This Proposed Plan should be withdrawn and resubmitted to public comment when tank characterization is complete, the potential risk is fully known, and realistic, compliant alternatives identified and evaluated.	F7-38/51 Two treatability studies were perfor ness of alternatives for the V-Tanks bilization (grouting) and treatment (situ stabilization (grouting), carried that three grouting mixes met the cr option. Pretreatment of trichloroeth tested. The study demonstrated that be used following pretreatment to d F7-39/58 The treatability study for in situ vitri for Planar In Situ Vitrification of IN. (INEEL/EXT-98-00854). The techn planar ISV, which melts from the sid (instead of top downward as in the o showed that planar ISV could safely F7-40/37 See also response to Comment F7-3 F7-41/58 F7-42/37, 83 F7-39/58
33.	Page 32 - Preferred Alternative for TSF-26 - Again, the soil surrounding the tanks	F7-43/37, 58 Decontamination and other treatmen oped during the remedial design. G tion, will not be a part of the selecte fied in Part II of this ROD, will be e niques will be described in the reme required, will be enforced by the Ag

**Test Area North, Waste Area Group 1
Public Comment Document F7**

Comment(s)

Response

- contains RCRA listed waste. The selected Alternative would place this soil in an on-site repository which was not intended to receive RCRA hazardous waste for disposal. The soil will likely meet risk-based no-longer-contained-in levels and be eligible for removal of listed waste codes but the Alternative, as described, does not mention this requirement.
34. Page 36 - List of "Proposed No Action Sites" - The statement "no action" misleads the public as some of the sites have received removal actions or "best management practices" or "maintenance actions". Thus action has been taken. These actions; the extent of the action; and result of the actions should be noted in the "Comments" column of the table and, if appropriate, discussed elsewhere in the document. A full description of the actions should also be included in the ROD.
35. Page 37 - List of "Proposed No Action Sites" - TSF-7, TSF-20, and WRRTF-04 - The Comments column states: "Site remediated in 1993". Under which CERCLA ROD were these remediations conducted? Were these actions done as part of formal CERCLA remediations? Removals? Or non-CERCLA activities? If conducted outside of CERCLA, please explain the rationale and authority used by DOE to conduct non-emergency cleanups of CERCLA sites without public review.

F7-43/
37, 58
(continued)

F7-44/
10, 12

F7-45/22

F7-40/37

See responses to Comments F7-37

F7-41/58

See response to Comment F7-39, a

F7-42/37, 83

See responses to Comments F-17, 1

F7-43/37, 58

See responses to Comments F7-37

F7-44/10, 12

The Agencies appreciate all sugges that could help a proposed plan bet

The Agencies strive to provide the i posed plan with both clear language comprehensive detail on any aspect references to the relevant sections of in the Administrative Record that pr posed plan is derived. The complet ing sampling data, data sources, and Track 1, Track 2, and other WAG 1

F7-45/22

TSF-07 Disposal Pond. The Agenc actions at this site. The portions of diation will be cleaned up in accor ROD. More information on this sit WAG 1. The original comment ma is described below.

TSF-17 Two Acid Neutralization Pi remediation found no evidence that that would require remediation. M Administrative Record for WAG 1.

TSF-20 Two Neutralization Pits No diation found no evidence that remu would require remediation. More i Administrative Record for WAG 1.

WRRTF-04 Radioactive Liquid Wa determined that no releases from th site is available in the Administrativ

Test Area North, Waste Area Group 1
Public Comment Document F8

Comment(s)

Respo

ENVIROCARE OF UTAH, INC.
THE SAFE ALTERNATIVE

March 18, 1998

Jerry Lyle
Office of Program Execution
DOE Idaho Operations Office
PO Box 2047
Idaho Falls, ID 83403-9901

Dear Mr. Lyle,

Enclosed please find comments from Envirocare of Utah, Inc. regarding the Proposed Plan for Waste Area Group 1 - Test Area North. We appreciate the opportunity to comment on the proposed alternatives and hope our comments are clear and concise.

If you have any questions regarding our statements, please feel free to contact me at 801-532-1330.

Sincerely,



KayLin Loveland
DOE Program Manager

enclosure

COMMUNITY NOTICE
OF
DOE PROGRAM

Test Area North, Waste Area Group 1
Public Comment Document F8



Comments regarding Waste Area Group 1: Test Area North,
Idaho National Engineering and Environmental Laboratory

Alternatives 1 and 3a: Limited Action and Excavation and On-Site Disposal were chosen as the preferred alternatives for the remediation of 2 Low-Level Radiocesium Contaminated Soil/Sediment Release sites which have the potential of risk to human health and/or the environment. These alternatives have several significant disadvantages associated with their implementation.

- Even though the contamination at the Test Area Disposal Pond (TSF-07) may represent naturally occurring concentrations and not the result of discharges, the levels were still found to be an unacceptable potential hazard to human health. As a result, extensive monitoring will need to continue indefinitely into the future, requiring extensive funding yet still leaving a health hazard.
- The cost estimate for Alternative 3b, Excavation and Off-Site Disposal, is exaggerated significantly. Although the volumes used to determine costs were not listed, similar analyses have been over estimated from 200% to 400%. This being the case, Alternative 3b would be as cost-effective or more cost-effective than Alternatives 1 and 3a.
- Alternative 3b is not more difficult to implement than other alternatives. Commercial remediation, transportation and disposal is a proven and successful process used on many DOE sites throughout the nation. INEEL has also been successful in transporting radioactive material to Envirocare of Utah in past projects.

Alternative 4: In Situ Vitrification of Tank Contents and Soil Within the Treatment Area was chosen as the preferred alternative for the remediation of the V-Tank Contents and Contaminated Soils (TSF-09/18); Alternative 4a: Soil Excavation, In Situ Treatment of Tank Contents, and On-Site Soil Disposal was chosen as the preferred alternative for the PM-2A Tank Contents and Soils. These alternative has several significant disadvantages associated with their implementation.

- The cost estimate for Alternative 4b, Soil Excavation, In Situ Treatment of Tank Contents and Off-Site Soil Disposal, is exaggerated significantly for the off-site soil disposal portion. Although the volumes used to determine costs were not listed, similar analyses have been over estimated from 200% to 400%.
- Historically, vitrification is a significantly more expensive treatment option (sometimes by a multiple of 50) than remediation, off-site treatment and off-site disposal. It does not appear that off-site treatment was considered as an option - only vitrification.
- Remediation, off-site treatment and off-site disposal can be bid by a contractor as a turn-key project, thus significantly reducing the overall project cost to the government.

Comment(s)

Response

F8-1/65

Alternative 1 - Limited Action will result in less risk posed by cesium from the active portions within the release area (half-life of 30 years) will be attenuated within the 100-year institutional control period.

F8-2/44

Off-site disposal cost estimates take into account disposal activities, such as the disposal of materials consider the cost of design, construction, (i.e., fully loaded cost estimate) of the disposal facility. Off-site disposal cost estimates for the V-Tanks (TSF-26) are for disposal of cesium of type of contamination represented by the release facility, Envirocare of Utah, were related. The cost estimates, along with the comprehensive RI/FS.

F8-3/45

The comparative evaluation of alternatives are less implementable than other factors, including the need for construction, the need for compliance with regulations, the need for procurement.

F8-4/44

See response to Comment F8-2. ab

F8-5/46

The effectiveness and implementability of planar ISV was evaluated in a 1990 support the ranking of planar ISV. The ISV technology typically is less effective for in situ treatment of mixtures of cesium exist in these tank sites.

However, the treatability study also included in the cost estimate prepared in the proposed plan. As a result, the cost for the V-Tanks sites increased by a decrease in cost-effectiveness.

At the same time, several new options and Tank Removal, Ex Situ Treatment of V-Tanks alternatives were originally considered for removal and off-site treatment and wastes. Facilities either did not exist

**Test Area North, Waste Area Group 1
Public Comment Document F8**

Comment(s)

Response

F8-5/46 (continued)

wastes similar to those in the V-Ti
able, making this an implementabi

The V-Tanks alternatives were ree
ISV cost and the off-site treatmen
would have high implementability
4. Based on the reevaluation, Alt
Tanks. Additional details on the r
in Part II, Section 7.1, of this ROI

F8-6/44

See response to Comment F8-2, al

Test Area North, Waste Area Group 1
Public Comment Document F9

Comment(s)

Response

8509 Hannon NE
Albuquerque, NM 87112

March 16, 1998

Mr. Jerry Lyle
Assistant Manager,
Office of Program Execution
US Department of Energy
P.O. Box 2047
Idaho Falls, Idaho 83403-2047

Re: Proposed Plan - Waste Area Group 1 - Test Area North

Dear Mr. Lyle:

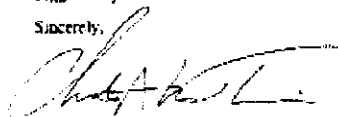
I do not understand how Alternative No. 4, In-Situ Vitrification can be proposed as the preferred alternative for TST-090118, V-Tank Contents and contaminated soils remediation. First, according to the footnotes to Table 5, "Positive responses on the first 2 criterion and the relative number of 5 scores were used in part to select the preferred alternative." Well, there are four other alternatives that have positive responses to the first 2 criterion - namely Alternatives 2a3, 2b, 3a, and 3b, that all have higher scores than In-Situ Vitrification. In fact, In-Situ Vitrification doesn't have any 5's and only one 4 across the five categories rated while 2a3 and 2b both have two 5's are equal or higher than Alt. 4 for the other criteria. Further, 3a has all 4's and 3b has four 4's and one 3. Thus, anyone of those alternatives is better than In-Situ Vitrification. Thus, how can DOE justify spending twice as much for In-Situ Vitrification as for Alternative 3a which scores higher and thus must be a better choice? (By contrast, the preferred alternative for the PH-2A tanks was among the lowest cost and scored better than In-Situ Vitrification)

Further, under the heading Preferred Alternative for V-Tank Contents and Contaminated Soils (TSF-090118) on page 26, it is recognized that there is not a high degree of assurance that In-Situ Vitrification will work since you specify that the Treatability Study has not even been successfully completed. Also, on page 26-27, the statement is made that the In-Situ Vitrification "is the only alternative that will comply with ARARs, except as noted in Table (sic) 5." Since Table 5 shows four other (and better) alternatives that will comply with ARARs, I am not sure what this statement is intended to justify.

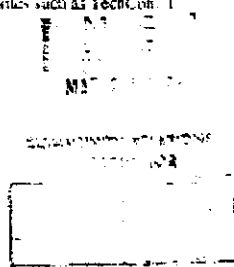
Basically, the history of In-Situ Vitrification has be fraught with high energy demands, explosions, fires and other failures that result in uncontrolled releases to the environment. Nothing in this plan demonstrates that those problems have been overcome. Meanwhile, significant progress has been made in technologies that destroy contaminants, particularly organics rather than just encapsulating them. Thus, they reduce toxicity and volume.

There are better ways to solve today's problems than with yesterday's technologies. Information on many of the improved technologies are available on the Internet - in fact on DOE sites such as TechCon. I suggest they be considered.

Sincerely,



Christopher M. Truitt, PE



F9-1/52

A treatability study of planar ISV, a ISV, was carried out in 1998 for the *Treatability Study for Planar In Situ Tanks*, October 1998 (INEEL/EXT-Record. The results of the study de implemented and would have high and surrounding the V-Tanks. The as shown in the November 1998 rev

The ISV technology typically is less required for in situ treatment of materials such as exist in these tank sites.

F9-2/51, 52

Two treatability studies were completed effectiveness of alternatives for the situ stabilization (grouting) and treatment for in situ stabilization (grouting) is for *LMITCO TSF-09 V-1, V-2, and* (INEEL/EXT-98-00739).

The CERCLA process provides for RI/FS process. Data collection effort extent necessary to select a remedy. are not intended to be carried out until to avoid delays in the RI/FS process.

See also response to Comment F9-1

F9-3/10

The proposed plan was revised and the public.

See also response to Comment F9-1

F9-4/53

The ISV technology that was tested described in the *Treatability Study for Area North V-Tanks*, October 1998 (enhancement of conventional ISV to occurred using conventional ISV. By ground surface down, conventional resulting in pressure buildup that can pool, overheating of the off-gas treatment resolves these issues by positioning the area, allowing the melt to proceed the vapors can vent upward and be controlled problems and process upsets are not

F9-1/52

F9-2/
51, 52

F9-3/10

F9-4/53

F9-5/49

F9-6/34

Test Area North, Waste Area Group 1
Public Comment Document F9

Comment(s)

Response

F9-4/53 (continued)

Planar ISV could simultaneously treat hazardous materials in the V-Tanks (incorporating the tanks). A full-scale demonstration (TSCA) requirements was performed at Site in Spokane, Washington, to treat TSCA permit was issued in October 1999. The demonstration was fully performed on dioxin and other Superfund Site in Salt Lake City, Utah. The demonstration was 99.99% successful. The planar ISV has been used on four Superfund projects to date. The demonstration shows that planar ISV could be used to treat tanks and surrounding contaminated

For the V-Tanks treatability study, to demonstrate the feasibility of treating soil from the TAN site, demonstration scale and configuration to prove the concept was performed on a 4,500-gal scaled tank. The tank was filled with sludge and liquids, including a number of materials present in the actual V-Tank. The space in the tank was filled with soil developed symmetrically with no preferential flow. The tank was successfully treated with the planar ISV. Post-test chemical sampling data indicated that 99.97% of the cesium was retained in the bottom of the tank, the soil and wood) that were processed during the process. Although organics were not successfully demonstrated previously, the planar ISV demonstrated previously that organic contaminants while ensuring effectiveness. The vitrified block was excavated. The concentration of cesium were shown to be essentially uniform.

However, the treatability study also indicated that the cost estimate prepared for the proposed plan. As a result, the Alternative 2 Tanks sites increased by 50%, lowering the cost-effectiveness.

At the same time, two commercial alternatives of the tank contents, increasing the cost of Tank Removal, Ex Situ Treatment (Ex Situ) are permitted to dispose of mixed waste. The V-Tanks alternatives were reevaluated based on cost and the off-site treatment availability. Alternative 2 would have equally high cost and greater cost-effectiveness compared to Alternative 1. The V-Tanks alternatives for the V-Tanks are in the

Test Area North, Waste Area Group 1
Public Comment Document F9

Comment(s)

Respo

F9-5/49

Individual treatment of PCBs would be less effective than treatment of the waste stream as a whole at this site. Biodegradation of PCBs and other organic compounds ("organics"), including heavy metals and radionuclides would be more effective and cost-effectiveness requirements at this site that would treat all contaminants. Pretreatment of some contaminants would be required for subsequent treatments for other contaminants.

F9-6/34

The primary objective of the feasible alternatives that will protect human waste; by eliminating it through treating risks posed by each pathway 300.430) directs that the alternative

- (1) the No Action alternative (which requires no remediation has already taken place)
- (2) one or more alternatives that provide equal or better performance or improved engineering and, as necessary, institutional controls
- (3) a range of alternatives involving different levels of cleanup of the volume of contaminants and, as appropriate, different types of controls of the contamination
- (4) one or more innovative treatment technologies that provide equal or better performance or improved engineering and, as necessary, institutional controls at lower costs in comparison to demonstrated alternatives

Three criteria are used to develop a term and long-term), implementability, adequate protection of human health are to be eliminated from further consideration. Alternatives that require equipment, specialized personnel, or other resources that would require equipment, specialized personnel, or other resources may be eliminated. If costs of implementation are grossly excessive compared to other alternatives, they are considered for elimination.

Test Area North, Waste Area Group 1
Public Comment Document F10

Environmental Defense Institute

P.O. Box 220 Troy, Idaho 83871-0220 Phone 208-835-6152/FAX 208-835-6153

MAR 2 / 1998

COMMUNITY RELATIONS
COORDINATOR

Comments on Proposed Plan Test Area North at INEEL
Submitted by Chuck Broscius
On behalf of the Environmental Defense Institute
March 1998

The Department of Energy's (DOE) Proposed Plan for Waste Area Group 1 (Test Area North TAN) dated February 1998 fails to provide remedial solutions that meet Applicable or Relevant and Appropriate Requirements (ARAR). The Plan offers no substantive information about the maximum contamination levels related to individual Operational Units (OU). Consequently, the general public is effectively denied essential information upon which to make their own determination of whether the preferred alternatives were appropriate.

The Plan claims to be "the comprehensive" CERCLA investigation into TAN. This is not a "comprehensive" Plan because the ANP Cask Storage Pad, the Area 10 HTRE Reactor Vessel Burial Site, and the TAN Pool have been excluded.

The apparent absence of lessons learned between the Hanford Environmental Restoration (ER) process and the INEEL ER process is regrettable and a serious threat to Idaho. DOE is taking advantage of its position as the single largest employer in Idaho to float ER actions at INEEL that the Department was not allowed to do at Hanford because public and regulatory pressure blocked shortcuts. Specifically, at Hanford DOE was required to build the Environmental Restoration Disposal Facility (ERDF) which is a fully compliant Resource Conservation Recovery Act (RCRA) Nuclear Regulatory Commission (NRC) mixed hazardous/radioactive dump with double liner, leachate collection and monitoring wells and an impermeable cap. ERDF was completed in the Spring of 1996 at the farthest location on Hanford away from the Columbia River and will receive contaminated soil and decontamination/decommissioning (D&D) waste. At INEEL, DOE refuses to build such a repository because the Department is not being pressured by the state and EPA regulators to comply with the law. The need for the INEEL equivalent to the ERDF is discussed in the INEEL Environmental Impact Statement and the INEEL Site Treatment Plan but DOE has yet to initiate construction because the regulators are allowing short cut ER proposals to go through.

The contamination the TAN Plan addresses is mixed hazardous / radioactive low-level waste (MLLW) and is listed in DOE's own Site Treatment Plan (STP) which the Department was required to generate to comply with the Federal Facilities Compliance Act. This MLLW designation is supported by the TAN Remedial Investigation/Feasibility Study (RI/FS) sample data that clearly shows Resource Conservation Recovery Act (RCRA) Toxicity Characteristic Leaching Procedure (TCLP) extraction analysis results exceeding the regulatory limit in 40 CFR at 261.23. Therefore RCRA Land Disposal Restrictions (LDR) in 40 Code of Federal Regulations (CFR) Parts 148 and Parts 268 for MLLW and Nuclear Regulatory Commission 10 CFR-Subpart D at 61.50 must be applied. Unfortunately, the State of Idaho Division of Environmental Quality (DEQ) and the Environmental Protection Agency as regulators refuse to force DOE to comply with the legal requirements of the most basic of environmental laws. The Plan proposes disposal of this MLLW in a manner that would not even comply with municipal garbage landfill requirements let alone the more stringent MLLW regulations. For those TAN hazardous waste release sites, the LDR's in 40 CFR 148 & 268 still apply.

Adding to the list of lessons NOT learned we must add dumping radioactive and chemical waste in

Comment(s)

Response

F10-1/4

The investigation and cleanup process of the FFA/CO for the INEEL signed ensure that TAN remediation activities protect human health and the environmental responses, that meet standard (DOE, EPA, and State of Idaho). The comprehensive RI/FS and this ROD remedies proposed for WAG 1 sites.

The CERCLA process carried out functions activities, to ensure the public wide variety of site-related decision alternatives analysis, and selection of plans and associated comment period opportunities for the community to the Agencies about their concerns. The process with its public comment on processes required by RCRA, will

F10-1/4

F10-2/26

F10-3/22

F10-4/37

F10-5/23

F10-6/37

F10-2/26

Maximum contaminant levels (MCL) permissible level of a contaminant in water. Water is not an affected medium under this ROD. For other contaminants discussed in this action, such as soil standards, as appropriate, which are proposed plan, and this ROD in section results of sampling and analysis of the site. The ROD is based on data collected fully in the comprehensive RI/FS documents, available in the Administrative documents, is required to summarize for each site at which cleanup is needed and its rationale. It is not intended baseline documents.

F10-3/22

The proposed plan is a summary of required to protect human health and releases of contamination. The proposed RI/FS for WAG 1, which was the critical release sites at TAN. These investigations of the FFA/CO for INEEL, determined that no action or no further action was required study. A 1995 Record of Decision determined that no action or no further action was required remedial action at 9 sites.

Test Area North, Waste Area Group 1
Public Comment Document F10

Comment(s)

Response

F10-3/22 (continued)

(TSF-08) was selected for a treatability study under WAG 10. Two sites do not pose a threat to the environment: the LOFT-02 and LOFT-03 Ponds. These sites also will be addressed in the comprehensive WAG 1 risk assessment, although they are active or inactive but in standby mode. Future releases from them could occur. A comprehensive assessment of risk. As discussed in the RI/FS, only 4 of the 89 buildings are in Appendix D also describes the properties of the environment. The information contained in the Administrative Record for WAG 1, the ROD, the comprehensive ROD, the Track 1 and Track 2 reports. The ROD was issued in February 1998 and the ROD summarizes this information adequately that may have resulted, the following question.

TSF-06, Area 8, ANP Cask Storage within the active Radioactive Parts which will be evaluated during future assessment indicated that the soil conditions which remediation is required. No remediation is required. No Administrative Record for WAG 1. not being addressed under this CEI.

TAN Pool (part of TAN-607 Hot Site). Potential threats to human health addressed during its removal from the site in the Administrative Record for WAG 1. TAN Pool is not being addressed under this CEI.

TSF-06, Area 10, Buried Reactor Vessel is contained in a metal storage tank and is not on the ground surface. No pathway to human health. Information on this site is available in the ROD.

F10-4/37

The actual on-site disposal location for the Radioactive Waste Management Center facility, will be determined during the development of this ROD. The proposed ICDF would be used to treat contaminated soil and debris. Selection of the ICDF depends at least in part on the time available and its waste acceptance criteria. The ICDF would be much lower than current RWMC.

The development of the ICDF is being completed by Idaho Nuclear Technology and Engineering Center (INTEC) (Chemical Processing Plant). A design is being developed.

**Test Area North, Waste Area Group 1
Public Comment Document F10**

Comment(s)

Response

F10-4/37 (continued)

ing, design, capacity, lifespan, and
October 1998, in the *Proposed Plan
Chemical Processing Plant*. The R
expected to be finalized in Septem

F10-5/23

Mixed low-level waste (MLLW) co
tive components. The contents of th
Tanks (TSF-26) are considered mixe
cable to these sites are listed in Par

Test Area North, Waste Area Group 1
Public Comment Document F10

Comment(s)

Respo

unlined shallow pits and trenches over top of the regions sole source Snake River Plain Aquifer. This misguided dumping practice at the INEEL Radioactive Waste Management Complex Subsurface Disposal Area has resulted extensive contamination of the aquifer. The proposed TAN Plan intends to repeat this dumping practice despite undeniable examples of failure of this approach. DOE has already gotten away with this illegal dumping in the Test Reactor Area Warm Waste Pond Environmental Restoration project completed in 1997. The Department proposes to repeat this type of dumping at the Naval Reactor Facility, Argonne-West and again at Test Area North. Still another lesson NOT learned at INEEL is the public and regulators rejection of grouting of MLLW and shallow land burial at Hanford. DOE proposes grouting the TAN tank wastes and leaving it in place in the existing waste tank. Grouting did not meet treatment and disposal requirements of MLLW at Hanford or INEEL. The State of Idaho simply will not force INEEL to comply with the relevant laws.

Below Table A lists the Operable Units (contaminate release sites) and the proposed decisions remedial actions or no actions. Table B lists the Operable Units and selected sampling data and the source of the data. This information is the result of weeks of review of the voluminous Administrative Record. The Environmental Defense Institute believes that this information is essential to making an informed decision as to whether DOE preferred alternative is appropriate and therefore should have been included in the Plan that was mailed out to the general public.

DOE has never in any of its INEEL Environmental Restoration Record of Decisions (ROD) been forced by the regulators to specify what institutional control constitutes. Only through that legally binding document can DOE held liable for specific actions. For instance, 100 years of institutional control (the amount DOE has committed to) could be interpreted as retaining ownership and annual flybys to monitor the site. In view of the toxicity of the waste being hazardous for hundreds of thousands of years, this is a crucial issue. The length of time the waste will pose a risk to any intruder must determine the duration of institutional control and barriers adequate to keep intruders out must be maintained for the duration. Monitoring must include soil and ground water sampling to ensure the waste is not migrating. A trust fund must also be established so that if the federal government again decides to ignore the law, that state or local government will have the resources to do the job.

References:

(a). Work Plan for Waste Area Group 1, Operable Unit 1-10, Comprehensive Remedial Investigation / Feasibility Study, Idaho National Engineering Laboratory, US Department of Energy Idaho Operations Office, DOE-ID-10527, March 1996.

(b). Comprehensive Remedial Investigation / Feasibility Study for the Test Area North Operable Unit 1-10, Idaho National Engineering Laboratory, US Department of Energy Idaho Operations Office, DOE-ID-10557, November 1997.

(c). Field Sampling Plan for Operable Unit 1-10 Test Area North, D. L. Michael, Lockheed Idaho Technologies Company, Idaho National Engineering Laboratory, March 1996.

(STP): Idaho National Engineering Laboratory, Proposed Site Treatment Plan, March 1995, DOE-ID-10493, U.S. Department of Energy Idaho Operations Office.

Plan, Proposed Plan for Waste Area Group 1 - Test Area North, Idaho National Engineering and Environmental Laboratory, February 1998, INEEL Environmental Restoration Program.

Department of Energy Programmatic Spent Nuclear Fuel Management and Idaho National Engineering Laboratory Environmental Restoration and Waste Management Programs Environmental Impact Statement, April 1995, DOE/EIS-0203-F.

F10-6/37
(continued)

F10-7/33

F10-8/
12, 24

F10-9/41

F10-10/40

F10-11/14

F10-6/37

See response to Comment F10-4, at

F10-7/33

It has been determined that grouting and TSF-18) or the PM-2A Tanks (identified in Part II of this ROD. A these sites that involve grouting to eliminated from consideration for s

F10-8/12, 24

The Agencies appreciate all suggest that could help a proposed plan bett important community relations activ process. The EPA's CERCLA guide *Preparing Superfund Decision Doc* proposed plan's content and purpos

The proposed plan, under CERCLA comprehensive RI/FS "but is not a s plan provides a "brief summary desc ated; (2) the alternative that is prefer of the preferred alternative. Oil nature of site contamination, previou summaries of more detailed investig

Many commenters on both WAG 1 for clear language and a straightfor the information required by CERCL guage and organization. For reader aspect of the investigation process, sections of the comprehensive RI/F Record that present in full the infor derived. The complete details of of data, data sources, and maximum cc Track 1, Track 2, and other WAG 1

In accordance with CERCLA guida all the alternatives studied in the de RI/FS, highlighting the key factors alternative. The Administrative Rec Agencies to assess risks at these site of data were compiled for each Ope referred to in the comprehensive RI proposed plan and the comprehensi Interested citizens who would like r project are encouraged to contact th (800) 708-2680.

Test Area North, Waste Area Group 1
Public Comment Document F10

Comment(s)

Respo

Table A

Site	Alternative	Comments
Low-level Rad Contaminated Soils		
TAN Injection Well TSF-05		Pump and treat implemented STP says liquid/sludge is MLLW
Turntable TSF-06 Area B	3a	DOE proposes Excavate soil and onsite disposal Waste Qualifies as MLLW
TSF-06 Contaminated Soil	1	DOE proposes limited action (institutional control) Waste qualifies as MLLW
Tan Disposal Pond (TSF-07)	1	DOE proposes limited action STP says contaminated soil is MLLW. DOE claims Ra-226 naturally occurring but is a daughter product of U-238. Possible shift to alternative 3a excavation and onsite disposal
Non-radioactive Contaminated Soils		
WRRTF Burn Pits WRRTF-01	1	DOE proposes limited action qualifies as hazardous waste
Mercury Spill Area TSF-08	3	DOE proposes excavation soil and off site disposal Qualifies as hazardous waste
Diesel Fuel Leak WRRTF-13	1	DOE proposes limited action Qualifies as hazardous waste
Disposal Pond Loft-02	0	DOE proposes no action Waste qualifies as MLLW
Drainage Pool TSF-10	0	DOE proposes no action Waste qualifies as MLLW
Tanks		
V-Tanks TSF-09/18	4	In-situ vitrification if fails (high VOC likely explode) alternate 3a soil excavation on-site disposal and grouting tank contents STP says liquid/sludge MLLW Contents and soils of V tanks qualify as MLLW V-2 tank liquid spill (1,700 gal)

F10-12/22

F10-9/41

Institutional controls are ongoing at health and the environment. Institutional controls such as deed restrictions, and physical structures such as embankments, which limit the available use given site, prevent the completion of unacceptable risk to human health. Contaminants in soil and are effectively become airborne.

Institutional controls have relatively low potential of a CERCLA response, especially for institutional controls. Institutional controls are not (treatment or removal) as the sole remedy. Institutional controls are not to be practicable during remediation where the remedial measure leaves potentially pose a risk to human health. Institutional controls are required to maintain protectiveness. Site effectiveness of the institutional controls at any site at which radioactive contaminants are present.

Institutional controls would be maintained at the site, which at INEEL closure. The institutional control program site responsibility. At TAN, the institutional controls began in 1999 and end in 2099. For details on institutional controls for F10-9/41

F10-10/40

Environmental monitoring is the same as detect changing conditions at a site. Environmental monitoring would be required if contamination remained under this ROD, environmental monitoring PM-2A Tanks (TSF-26), the Disposal Pond and WRRTF-01).

Environmental monitoring under this ROD includes analysis of air, soil, plants, may include the use of high- and low-level fugitive radionuclides escape sites. Environmental monitoring may include radiation surveys of soil and debris are left in place to the surface.

The specific types of environmental contamination remains in place or removal actions will be determined.

**Test Area North, Waste Area Group 1
Public Comment Document F10**

Comment(s)

Respo

F10-11/14

The federal government has an obligation (i.e., limit access) to areas that the public and workers until that risk is intended purpose. Achievement of Congressional appropriation of sufficient entity charged to maintain the institution long as the federal government of the

F10-12/22
(continued)

F10-12/22

See response to Comment F10-3, al

IET Valve Pit TSF-21	o	DOE proposes No action STP says contaminated soil is MLLW page 6-3
PM-2A Tank TSF-26	4a	DOE proposes soil excavation on-site disposal and In-situ grouting of tank contents STP says debris/sludge is MLLW

Ignored sites: ANP Cask Storage Pad; Area 10 Reactor Vessel Burial Site
TAN Pool contaminated soil

Table B

TAN Site	Contaminate	Concentration	Reference
ANP Cask Storage Pad	Gross Alpha	330 pCi/g	(a) Table A-5-5
	Gross Beta	25,600 pCi/g	"
	Cs-137	30,400 pCi/g	
TSF-3 Burn Pit			
	Lead	2,830 mg/kg (a)	(a) Table A-2-3
TSF-06			
Contaminated Soil	Cs-137	30,400	(a)4-24
	Mercury	80,500 mg/kg	(a) Table A-5-6
	Gross Beta	1,880 pCi/g	(a) Table A-5-7
TSF-07 TAN Disposal Pond	Sight Treatment Plan	lists as MLLW	STP @ 6-3
	aluminum	25,400 mg/kg	(a)4-29
	barium	9,740 mg/kg	(b) 4-110
	mercury	4,040 mg/kg	"
	sulfide	4,270 mg/kg	"
	Cobalt-60	87.7 pCi/g	"
	Cesium-137	135 pCi/g	"
Drainage Pool TSF-10			
	aluminum	30,400 mg/kg	(a)4-26

Test Area North, Waste Area Group 1
Public Comment Document F10

Comment(s)

Respo

TSF-09/18			
V-1 Tank Liquid	Cobalt-60	101,000 pCi/l	(a) Table A-6-10
	Cs-134	16,900 pCi/l	(a) Table A-6-10
	Cs-137	12,500,000 pCi/l	(a) Table A-6-10
	Europium-152	83,800 pCi/l	(a) Table A-6-10
	Europium-154	93,800 pCi/l	(a) Table A-6-10
	Plutonium-238	7,010 pCi/l	(a) Table A-6-10
	Plutonium-239	3,220 pCi/l	(a) Table A-6-10
	Gross Beta	16,100,000 pCi/l	(c) 59
	Gross Gamma	24,300,000 pCi/l	(c) 59
	Gross Alpha	19,800 pCi/l	(c) 59
	Tritium	11,800,000 pCi/l	(a) Table A-6-10
	Total Strontium	1,840,000 pCi/l	(a) Table A-6-10
	Lead	842 ug/l	(a) Table A-6-10
	Tetrachloroethene	1,800,000 ug/kg	(a) Table A-6-11
	Trichloroethene Tetrachloroethene Vinyl Chloride	All three chemicals/metals Exceed TCLP	(c) 8 through 12
Tank V-2	Gross Beta	6,340,000 pCi/l	(c) 59
	Gross Gamma	38,500,000 pCi/l	(c) 59
	Gross Alpha	84.9 pCi/l	(c) 59
	Trichloroethene Tetrachloroethene Cadmium Vinyl Chloride	All four chemicals/metals Exceed TCLP	(c) 8 through 12
V-3 Tank	Uranium-233/234	13,300 pCi/l	(b) A-83
	Strontium-90	12,300,000 pCi/l	"
	Cobalt-60	14,800 pCi/l	"
	Cesium-137	4,230,000 pCi/l	"
	Ruthenium-103	13,600 pCi/l	"
	Tritium	6,090,000 pCi/l	"

A-43

Test Area North, Waste Area Group 1
Public Comment Document F10

Comment(s)

Response

	Nickel-63	205,000 pCi/l	"
	Gross Beta	28,300,000 pCi/l	(c) 59
	Gross Gamma	2,230,000 pCi/l	(c) 59
	Trichloroethene Tetrachloroethene Vinyl Chloride	All three chemicals/metals Exceed TCLP	(c) 8 through 12
V-1, 2, 3 & 9 Tanks	STP lists waste as	MLLW	
V-9 Tank	Americium-241	40,200 pCi/l	(b) A-91
	Plutonium-238	170,000 pCi/l	(b) A-91
	Plutonium-239/240	45,300 pCi/l	(b) A-91
	Uranium-233	12,400 pCi/l	(b) A-91
	Uranium-234	211,000 pCi/l	(b) A-91
	Uranium-235	6,900 pCi/l	(b) A-91
	Uranium-236	3,260 pCi/l	(b) A-91
	Uranium-238	972 pCi/l	(b) A-91
	Cesium-137	6,370,000 pCi/g	(b) A-91
	Tritium	353,000,000 pCi/l	(b) A-91
	Total Strontium	250,000,000 pCi/l	(b) A-91
	37 hazardous chemicals/metals		(b) 10-44
PMA-2M TSF-26 V-13 Tank	Cobalt-60	45,900,000 pCi/l	(c) 31
	Europium-154	93,000,000 pCi/l	(C) 31
	Cesium-137	2,900,000,000 pCi/l	(c) 31
	Strontium-90	2,850,000,000 pCi/l	(c) 31
	Cesium-134	18,100,000 pCi/l	(c) 31

A-44

Test Area North, Waste Area Group 1
Public Comment Document F10

Comment(s)

Respo

PMA-2M TSF-26 V-14 Tank	Cobalt-60	191,000,000 pCi/l	(c) 31
	Cesium-134	2,000,000 pCi/l	(C) 31
	Cesium-137	9,420,000,000 pCi/l	(c) 31
	Europium-154	17,200,000 pCi/l	(c) 31
	Strontium-90	9,260,000,000 pCi/l	(c) 31
	32 hazardous chemicals/metals		(b) 10-28
V Tank soil	STP lists as M.I.L.W	54,120 pCi/g	RE-P-80-090 @6
V-13 & V-14 Tanks	STP lists liquid/sludge	MLLW	STP @ 6-3
IET Valve Pit TSF-21			
	Cs-137	602,000 pCi/l	(a) Table A-9-2
	Lead	9,350 ug/l	(a) Table A-9-2
	Trichloroethene	22,000 ug/l	"
Loft-02 Disposal Pond	aluminum	23,900 mg/kg	(b) 7-43
	manganese	1,080 mg/kg	"
	gross alpha	8,400 pCi/kg 8.4 pCi/g	"
	gross beta	6,500 pCi/kg 6.5 pCi/g	"
WRRTF-01 Burn Pit	Xylene	6,600 ug/kg	(a) Table A-3-3
	Acetone	4,200 ug/kg	(a) Table A-3-5
	Naphthalene	7,800 ug/kg	(a) Table A-3-5
	2-methylnaphthalene	10,300 ug/kg	(a) Table A-3-5
	Lead	2,350 ug/kg	(a) Table A-3-6
Diesel Fuel Tank WRRTF-13	TPH	35,700 mg/kg	(b) 4-140

A-45

Test Area North, Waste Area Group 1
Public Comment Document F11

Comment(s)

Respo

What's Your Opinion?

The agencies want and need to hear from you to effectively decide what action to take at the Test Area North.

Comments:

~~RE~~ MERCURY SPILL AREA (TSF-08)

THERE IS ~~THE~~ A MERCURY EXTRACTION TECHNOLOGY
CALLED GEMEP THAT IS BEING IMPLEMENTED
ON A REGION 2 SUPERFUND SITE TO CLEAN UP
GROSS TO 10,000 LBS. VARS OF MERCURY CONTAMINATED
SOILS AND DEBRIS. THIS PROCESS WORKS WELL,
PRODUCES NO HAZARDOUS BY PRODUCTS AND IS CHEAP.
IT IS A NON-THERMAL, CHEMICAL PROCESS
AND WOULD BE IDEAL FOR CLEANING THE
TSF-08 SOILS IN PLACE AT GREAT ~~SAVINGS~~ (Continued on reverse)

F11-1/77

F11-1/77

Based on low community support for February proposed plan (Alternative concern expressed about treatment of (TSF-08) was removed from this RI be conducted at the site. Based on study, a determination will be made action, if required.

* If you want a copy of the Record of Decision and Responsiveness Summary, make sure your mailing label shown below is correct.

A-46



INEEL Environmental Restoration Program
P.O. Box 2047
Idaho Falls, ID 83403-2047

Address Service Requested



LAWRENCE C. FARRAR
MONTEC ASSOC
PO BOX 4182
BUTTE, MT 59702